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	CLARKE PLACE		SHERR, CRISTINA O	
RESTON, VA 20191			ART UNIT	PAPER NUMBER
			3621	
			NOTIFICATION DATE	DELIVERY MODE
			03/18/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
	10/007,583	BERTRAM ET AL.
Office Action Summary	Examiner	Art Unit
	CRISTINA OWEN SHERR	3621
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).
Status		
 1) Responsive to communication(s) filed on 12/10 2a) This action is FINAL. 2b) This 3) Since this application is in condition for allowant closed in accordance with the practice under E 	action is non-final. nce except for formal matters, pro	
Disposition of Claims		
4) ☐ Claim(s) 1-19 is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-19 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or Application Papers 9) ☐ The specification is objected to by the Examine 10) ☐ The drawing(s) filed on is/are: a) ☐ access	relection requirement. r. epted or b)□ objected to by the B	
Applicant may not request that any objection to the one of the correction of the cor		
11)☐ The oath or declaration is objected to by the Ex	aminer. Note the attached Office	Action or form PTO-152.
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list of	s have been received. s have been received in Applicati ity documents have been receive ı (PCT Rule 17.2(a)).	on No ed in this National Stage
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	ate

Office Action Summary

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DETAILED ACTION

1. In view of the appeal brief filed on December 10, 2007, PROSECUTION IS HEREBY REOPENED. Claims 1-19 are currently pending in this case.

- 2. To avoid abandonment of the application, appellant must exercise one of the following two options:
- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
 - (2) request reinstatement of the appeal.
- 3. If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Response to Arguments

- 4. Applicant's arguments, see appeal brief, filed December 10, 2007, with respect to the rejection(s) of claim(s) 8-19, as not being properly treated in the rejection have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Herz (US 6,029,195), as below.
- 5. Applicants' arguments filed December 10, 2007, with respect to claims 1-8 have been fully considered but they are not persuasive.
- 6. Applicants argue, regarding claim 1, that nothing in the cited reference discloses, teaches or suggests "receiving a recommendation request comprising a selected item list from an advisee".

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7. Examiner respectfully disagrees and directs attention to Herz, wherein "For example, a user searching for information on a subject can write a short description of the desired information. The information retrieval computer generates an article profile for the request and then retrieves articles with profiles similar to the profile generated for the request. These requests can then be refined using "relevance feedback", where the user actively or passively rates the articles retrieved as to how close the information contained therein is to what is desired. The information retrieval computer then uses this relevance feedback information to refine the request profile and the process is repeated until the user either finds enough articles or tires of the search." (col 2 In 66- col 3 In 10). Obviously the user is making a request that is received by the information retrieval computer.

- 8. Applicants argue, regarding claim 1, that nothing in the cited reference teaches, discloses "computing a plurality of similarity factors based on: at least one advisee profile from at least one newly rated item and determining which at least one user has already rated the item, wherein the advisee profile comprises a plurality of records, each record including a user identifier, an item identifier, and a rating value, such that each record is linked in a first and a second dimension."
- 9. Examiner respectfully disagrees and directs attention to Herz, wherein "Relevant definitions of terms for the purpose of this description include: (a.) an object available for access by the user, which may be either physical or electronic in nature, is termed a "target object", (b.) a digitally represented profile indicating that target object's attributes is termed a "target profile", (c.) the user looking for the target object is termed a "user",

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(d.) a profile holding that user's attributes, including age/zip code/etc. is termed a "user profile", (e.) a summary of digital profiles of target objects that a user likes and/or dislikes, is termed the "target profile interest summary" of that user, (f.) a profile consisting of a collection of attributes, such that a user likes target objects whose profiles are similar to this collection of attributes, is termed a "search profile" or in some contexts a "query" or "query profile," (g.) a specific embodiment of the target profile interest summary which comprises a set of search profiles is termed the "search profile set" of a user, (h.) a collection of target objects with similar profiles, is termed a "cluster," (i.) an aggregate profile formed by averaging the attributes of all tar get objects in a cluster, termed a "cluster profile," (j.) a real number determined by calculating the statistical variance of the profiles of all target objects in a cluster, is termed a "cluster variance," (k.) a real number determined by calculating the maximum distance between the profiles of any two target objects in a cluster, is termed a "cluster diameter."" (col 4 In 48-col 5 In 5).

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- Applicants argue, regarding claim 1, that nothing in the cited reference discloses, 10. teaches or suggest, "similarity between the advisee and a plurality of users of the recommendation system who have previously provided ratings of items from the selected item list."
- 11. Examiner respectfully disagrees and directs attention to Herz, wherein ""relevance feedback", where the user actively or passively rates the articles retrieved as to how close the information contained therein is to what is desired." (col 6 ln 38-45) and wherein "similar consumers buy similar products" (e.g. col 12 ln 25-27).

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12. Applicants argue, regarding claim 7, that nothing in the cited reference teaches, discloses or suggests "a user profile for a recommendation system, comprising a plurality of records, each record including a user identifier, an item identifier, and a rating value, wherein each record is linked in a first and a second dimension, the first dimension linking records with a same user identifier in a sequence according to the item identifier, and the second dimension linking records with a same item identifier in a sequence according to the user identifier".

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13. Examiner respectfully disagrees and directs attention to Herz, wherein "Relevant definitions of terms for the purpose of this description include: (a.) an object available for access by the user, which may be either physical or electronic in nature, is termed a "target object", (b.) a digitally represented profile indicating that target object's attributes is termed a "target profile", (c.) the user looking for the target object is termed a "user", (d.) a profile holding that user's attributes, including age/zip code/etc. is termed a "user profile", (e.) a summary of digital profiles of target objects that a user likes and/or dislikes, is termed the "target profile interest summary" of that user, (f.) a profile consisting of a collection of attributes, such that a user likes target objects whose profiles are similar to this collection of attributes, is termed a "search profile" or in some contexts a "query" or "query profile," (g.) a specific embodiment of the target profile interest summary which comprises a set of search profiles is termed the "search profile set" of a user, (h.) a collection of target objects with similar profiles, is termed a "cluster," (i.) an aggregate profile formed by averaging the attributes of all tar get objects in a cluster, termed a "cluster profile," (j.) a real number determined by calculating the

statistical variance of the profiles of all target objects in a cluster, is termed a "cluster variance," (k.) a real number determined by calculating the maximum distance between the profiles of any two target objects in a cluster, is termed a "cluster diameter."" (col 4 In 48-col 5 In 5).

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- 14. Applicants argue, regarding claim 8, that nothing in the cited reference discloses, teaches or suggests "selecting a first set of users from a group of users of the recommendation system based on the selected item list and selecting neighboring users from the first set of users based on similarities between the advisee and each member of the first set of users."
- 15. Examiner respectfully disagrees and directs attention to Herz, wherein "Relevant definitions of terms for the purpose of this description include: (a.) an object available for access by the user, which may be either physical or electronic in nature, is termed a "target object", (b.) a digitally represented profile indicating that target object's attributes is termed a "target profile", (c.) the user looking for the target object is termed a "user", (d.) a profile holding that user's attributes, including age/zip code/etc. is termed a "user profile", (e.) a summary of digital profiles of target objects that a user likes and/or dislikes, is termed the "target profile interest summary" of that user, (f.) a profile consisting of a collection of attributes, such that a user likes target objects whose profiles are similar to this collection of attributes, is termed a "search profile" or in some contexts a "query" or "query profile," (g.) a specific embodiment of the target profile interest summary which comprises a set of search profiles is termed the "search profile set" of a user, (h.) a collection of target objects with similar profiles, is termed a

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"cluster," (i.) an aggregate profile formed by averaging the attributes of all tar get objects in a cluster, termed a "cluster profile," (j.) a real number determined by calculating the statistical variance of the profiles of all target objects in a cluster, is termed a "cluster variance," (k.) a real number determined by calculating the maximum distance between the profiles of any two target objects in a cluster, is termed a "cluster diameter."" (col 4 ln 48-col 5 ln 5).

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.
- 17. Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Herz (US 6,029,195).
- 18. Regarding claim 1 –

Herz discloses a computerized method for generating a recommendation of an item to an advisee, comprising the steps of:

receiving a recommendation request comprising a selected item list from an advisee for a recommendation by a recommendation system; (e.g. col 25 ln 46-62, col 3 ln 1-10); ((note that if a user is requesting a recommendation, the recommendation must somehow be received, and that no one asks for a recommendation in a vacuum, but rather asks for a recommendation on a type or list of items, such as apples, history books, or romantic movies); Also: "For example, a user searching for information on a

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subject can write a short description of the desired information. The information retrieval computer generates an article profile for the request and then retrieves articles with profiles similar to the profile generated for the request. These requests can then be refined using "relevance feedback", where the user actively or passively rates the articles retrieved as to how close the information contained therein is to what is desired. The information retrieval computer then uses this relevance feedback information to refine the request profile and the process is repeated until the user either finds enough articles or tires of the search." (col 2 ln 66- col 3 ln 10). Clearly, the user is making a request that is received by the information retrieval computer.) in response to the recommendation request, computing a plurality of similarity factors based on:

at least one advisee profile from at least one newly rated item and determining which at least one user has already rated the item, wherein the advisee profile comprises a plurality of records, each record including a user identifier, an item identifier, and a rating value, such that each record is linked in a first and a second dimension ((e.g. col 3 ln 7-10, where "computing a plurality of similarity factors" = "generates an article profile for the request"); and

items from the selected item list that indicate similarity between the advisee and a plurality of users of the recommendation system who have previously provided ratings of items from the selected item list ("relevance feedback", where the user actively or passively rates the articles retrieved as to how close the information contained therein is to what is desired. (e.g. col 3 ln 1-3, col 6 ln 38-45));

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selecting, from the plurality of users of the recommendation system, neighboring users to the advisee, according to the similarity factors ("similar consumers buy similar products" (e.g. col 12 ln 25-27, col 20 ln 1-22)); generating a recommendation of at least one item of the selected item list, according to

the previously provided ratings of the at least one item by the neighboring users. (e.g. col 70 ln 1-7; col 12 ln 25-27, col 20 ln 1-22);

19. It is inherent that, while Herz refers specifically to selecting, recommending, and providing articles such as journal or magazine articles in digital format, that the same method(s) can be used to select, recommend and provide other, even nondigital items.

20. Regarding claim 2 -

Herz discloses the method of claim 1, wherein all items upon which the step of computing depends are included in the selected item list. (e.g. col 16 ln 34-48).

21. Regarding claim 3 -

Herz discloses the method of claim 2, wherein the recommendation of at least one item includes only items that are included in the selected item list. (e.g. col 26 ln 22-45).

22. Regarding claim 4 –

Herz discloses the method of claim 1, wherein the step of selecting neighboring users excludes any user whose similarity with the advisee is below a predetermined threshold. (e.g. col 88 ln 8 - 37).

23. Regarding claim 5 -

Herz discloses the method of claim 1, wherein the step of computing and the step of selecting are executed substantially in parallel by inserting each newly computed

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similarity factor into a neighbor list in decreasing order of similarity and by limiting length of the neighbor list by excluding a user with lowest similarity if otherwise the neighbor list would exceed a predetermined length. (e.g. col 18 ln 5-8).

24. Regarding claim 6 -

Herz discloses the method of claim 1, further including the step of caching identifiers of the neighboring users, associated similarity factors, and time stamps. (e.g. col 5 ln 55-57). Although Herz does not utilize exactly the same criteria for filtering out users as in the instant case, it is inherent to merely choose different criteria or characteristics as identifiers.

25. Regarding claim 7 –

Herz discloses a user profile for a recommendation system, comprising a plurality of records, each record including a user identifier, an item identifier, and a rating value, wherein each record is linked in a first and a second dimension, the first dimension linking records with a same user identifier in a sequence according to the item identifier, and the second dimension linking records with a same item identifier in a sequence according to the user identifier. (e.g. col 39 ln 12-22, col 39 ln 1-11).

26. Note that "Relevant definitions of terms for the purpose of this description include: (a.) an object available for access by the user, which may be either physical or electronic in nature, is termed a "target object", (b.) a digitally represented profile indicating that target object's attributes is termed a "target profile", (c.) the user looking for the target object is termed a "user", (d.) a profile holding that user's attributes, including age/zip code/etc. is termed a "user profile", (e.) a summary of digital profiles of

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target objects that a user likes and/or dislikes, is termed the "target profile interest summary" of that user, (f.) a profile consisting of a collection of attributes, such that a user likes target objects whose profiles are similar to this collection of attributes, is termed a "search profile" or in some contexts a "query" or "query profile," (g.) a specific embodiment of the target profile interest summary which comprises a set of search profiles is termed the "search profile set" of a user, (h.) a collection of target objects with similar profiles, is termed a "cluster," (i) an aggregate profile formed by averaging the attributes of all tar get objects in a cluster, termed a "cluster profile," (j.) a real number determined by calculating the statistical variance of the profiles of all target objects in a cluster, is termed a "cluster variance," (k.) a real number determined by calculating the maximum distance between the profiles of any two target objects in a cluster, is termed a "cluster diameter."" (col 4 In 48-col 5 In 5).

27. Regarding claim 8 -

Herz discloses a computerized method for generating a recommendation of an item to an advisee, comprising the steps of:

receiving a recommendation request comprising a selected item list from an advisee for the recommendation by a recommendation system (e.g. col 25 ln 46-62, col 3 ln 1-10); (note that if a user is requesting a recommendation, the recommendation must somehow be received, and that no one asks for a recommendation in a vacuum, but rather asks for a recommendation on a type or list of items, such as apples, history books, or romantic movies);

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in response to the recommendation request, computing a plurality of similarity factors based on at least one advisee profile from at least one newly rated item and determining which at least one user has already rated the item (e.g. col 3 ln 7-10); selecting a first set of users from a group of users of the recommendation system based on the selected item list (e.g. col 3 ln 1-3, col 6 ln 38-45); selecting neighboring users from the first set of users based on similarities between the advisee and each member of the first set of users ("similar consumers buy similar products" (e.g. col 12 ln 25-27, col 20 ln 1-22)); and generating a recommendation of at least one item from the selected item list based on ratings provided by each neighboring user. (e.g. col 70 ln 1-7). (e.g. col 12 ln 25-27, col 20 ln 1-22).

28. Note that ""Relevant definitions of terms for the purpose of this description include: (a.) an object available for access by the user, which may be either physical or electronic in nature, is termed a "target object", (b.) a digitally represented profile indicating that target object's attributes is termed a "target profile", (c.) the user looking for the target object is termed a "user", (d.) a profile holding that user's attributes, including age/zip code/etc. is termed a "user profile", (e.) a summary of digital profiles of target objects that a user likes and/or dislikes, is termed the "target profile interest summary" of that user, (f.) a profile consisting of a collection of attributes, such that a user likes target objects whose profiles are similar to this collection of attributes, is termed a "search profile" or in some contexts a "query" or "query profile," (g.) a specific embodiment of the target profile interest summary which comprises a set of search

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profiles is termed the "search profile set" of a user, (h.) a collection of target objects with similar profiles, is termed a "cluster," (i.) an aggregate profile formed by averaging the attributes of all tar get objects in a cluster, termed a "cluster profile," (j.) a real number determined by calculating the statistical variance of the profiles of all target objects in a cluster, is termed a "cluster variance," (k.) a real number determined by calculating the maximum distance between the profiles of any two target objects in a cluster, is termed a "cluster diameter."" (col 4 In 48-col 5 In 5).

29. As above, it is inherent that, while Herz refers specifically to selecting, recommending, and providing articles such as journal or magazine articles in digital format, that the same method(s) can be used to select, recommend and provide other, even nondigital items.

30. Regarding claim 9 -

Herz discloses the computerized method of claim 8, wherein the similarities are determined from an advisee profile and user profiles, and the advisee and user profiles are based on advisee and user behavior including at least one of buying pattern, item ratings, bookmarked websites, website usage pattern, and user action relative to a particular item. ("similar consumers buy similar products" (e.g. col 12 ln 25-27, col 20 ln 1-22));

31. Regarding claim 10 –

Herz discloses the computerized method of claim 9, wherein an advisee profile or a user profile is updated when a new piece of information is added thereto. (e.g. col 6 In 15-25).

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32. Regarding claim 11 -

Herz discloses the computerized method of claim 8, further comprising assigning a confidence factor to each advisee profile and each user profile, wherein the confidence factor is based on the combined effect of selected pieces of information recorded in a user or advisee profile. (e.g. col 30 ln 20-35).

33. Regarding claim 12 –

Herz discloses the computerized method of claim 8, further including determining similarities between the advisee and each member of the first set of users after receiving a selected item list from the advisee. (e.g. col 6 ln 38-45).

34. Regarding claim 13 –

Herz discloses the computerized method of claim 8, wherein a member of the first set of users is selected as a neighboring user if the similarity between the advisee and the member of the first set of users is better than a predetermined threshold. (e.g. col 6 ln 38-45, col 18 ln 1-10).

35. Regarding claim 14 –

Herz discloses the computerized method of claim 8, further comprising assigning a weight to each neighboring user where the weight is greater for a neighboring user have greater similarity to the advisee and the weight is lower for a neighboring user having a lower similarity to the advisee. (e.g. col 22 ln 15-30).

36. Regarding claim 15 –

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Herz discloses the method of claim 1, further comprising updating the selected neighboring users each time a new rating is entered or inferred during the recommendation request. (col 66 ln 1-25).

37. Regarding claim 16 -

Herz discloses the system of claim 7, wherein the system updates selected neighboring users each time a new rating is entered or inferred during a recommendation request. (col 66 ln 1-25).

38. Regarding claim 17 -

Herz discloses the method of claim 8, further comprising updating the selected neighboring users each time a new rating is entered or inferred during the recommendation request. (col 66 ln 1-25).

39. Regarding claim 18 –

Herz discloses the method of claim 1, wherein the selected neighboring users are users who have a similarity factor which is better than a predetermined threshold value. (e.g. col 6 ln 38-45, col 18 ln 1-10).

40. Regarding claim 19 -

Herz discloses the method of claim 8, wherein the selected neighboring users are users who have a similarity factor which is better than a predetermined threshold value. (e.g. col 6 ln 38-45, col 18 ln 1-10).

Claim Rejections - 35 USC § 103

41. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- 42. Claims 1-19 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Herz (US 6,029,195).).
- 43. It is the Examiner's principle position that the claims are anticipated because of the inherencies noted above in Herz.
- 44. However, if not inherent, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the same methods can be used to sell, recommend, provide, suggest, any item whether digital or physical as are used to sell, recommend, provide, suggest journal or magazine articles in digital format.
- 45. Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may be applied as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention as well as the context of the passage as taught by the prior art or disclosed by the examiner.

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Conclusion

46. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- 47. Linden et al (US 6,266,649) disclose collaborative recommendations using itemto-item similarity mappings.
- 48. Smith et al (US 6,853,982) discloses content personalization based on actions performed during a current browsing session.
- 49. Petra et al (US 2004/0205065) discloses a system for creating and maintaining a database of information utilizing user opinions.
- 50. Linden et al (US 6,912,505) discloses use of product viewing histories of users to identify related products.
- 51. Petras et al (US 2001/0047290) discloses a system for creating and maintaining a database of information utilizing user opinions.
- 52. Amazon.com catapults electronic commerce to next level with powerful new features (Amazon News release, Sept. 23, 1997).
- 53. Epinions.com buying guide.
- 54. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CRISTINA OWEN SHERR whose telephone number is (571)272-6711. The examiner can normally be reached on 8:30-5:00 Monday through Friday.

¹ See MPEP §2112 expressly authorizing alternative §102/§103 rejections when the question of inherency is present in the anticipation rejection.

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55. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andrew J. Fischer can be reached on (571)272-6779. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300. Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cristina Owen Sherr, AU 3621

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by

signing below:

/Bradley B Bayat/

Primary Examiner, Art Unit 3621

For

Andrew J. Fischer, SPE 3621